

IN THE DRAWINGS

The attached sheet of drawings include changes to Figs. 1 and 1B. These sheets, which include Figs. 1 and 1B, replace the original sheet including Figs. 1 and 1B.

Attachment: Replacement Sheets

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-10 are presently active in this case, Claims 1, 2, 4, 6 and 7 amended, and Claims 8-10 added by way of the present amendment.

In the outstanding Office Action, the drawings were objected to for informalities; and Claims 1-7 were rejected under 35 U.S.C. § 102(b).

With regard to the objection to the drawings, Figures 1 and 1B have been amended to include the legend "Prior Art". Thus, the objection to the drawings is overcome.

Turning now to the merits, Applicants' invention is directed to a method and system for transferring IP packets. As discussed in Applicants' specification, the type of service (TOS) field of an IP packet may include eight bit QoS information having "precedence" flags, or a six bit differentiated service (DS) information that specifies a traffic class of the IP packet within a network domain.¹ Thus, TOS formats are different among IP packets, and network nodes differ in the format that can be handled by the network node. This causes a problem in that priority transmission control of IP packets cannot be carried out.² Applicants' invention addresses this problem.

Specifically, as discussed with respect to the example of Figures 2A and 2B in Applicants' specification, when setting up a communication path a network node receives a message from a mobile station indicating a traffic class of IP packets that the mobile station wants to transfer to the network.³ The network equipment (such as the control apparatus) then looks up a priority corresponding to the received traffic class, and sets priority information in memory tables such as T2 and T3 for example.⁴ When an IP packet is

¹ See Applicants' published specification, U.S. 2004/0105452 at paragraphs [0012] and [0013].

² See Applicants' published specification at paragraph [0014].

³ See Applicants' specification at paragraph [0072].

⁴ See Applicants' specification at paragraphs [0077]-[0078].

subsequently sent from the mobile station to the network, the network regenerates the IP packet and replaces the existing TOS field (which may be various formats as discussed above) with a bit code representative of the priority previously set.⁵ In this way, the radio access network can adapt to an environment in each network domain and can carry out the priority transmission control of IP packets in consideration of traffic requirements.⁶

In order to expedite issuance of a patent in this case, Applicants have amended independent Claims 1 and 2 to clarify patentable features of the present invention over the cited references. Specifically, Applicants' Claim 1, as amended, recites a radio access network system for transferring a packet in a network, the radio access network system including a base station and a control apparatus configured to manage and control operating of the base station. The claimed radio access network system includes a transfer path setter configured to set a transfer path for the packet in the network. Also recited is that the control apparatus includes a field information notifier configured to notify field information showing a format of a predetermined field in the packet, a priority information setter configured to set priority information for determining a priority of the packet to be transferred via the base station and the control apparatus which are included in the transfer path, and a packet processor configured to determine the priority of a packet received at the control apparatus in accordance with the priority information, and to add the priority to the predetermined field received packet in accordance with the field information notified by the field information notifier.

Thus, Applicants have amended Claim 1 to recite a field information notifier configured to notify field information showing a format of a predetermined field in the packet, or a packet processor configured to determine the priority of a packet received at the control apparatus in accordance with the priority information, and to add the priority to the

⁵ See Applicants' specification at paragraphs [0089]-[0093].

⁶ See Applicants' specification at paragraph [0015].

predetermined field received packet in accordance with the field information notified by the field information notifier. Amended Claim 2 has also been amended to include these features in method claim format.

In contrast, WO 01/86885 discloses a classification device that provides DiffServe compatibility to radio access networks that do not otherwise provide DiffServe compatibility.⁷ As seen in Figure 1 of the cited WO reference, the classifying device 6 is placed at an input or output of a device where the IP layer is terminated, thereby allowing conversion to DiffServe protocol between dissimilar networks. As seen in Figure 3, the classification device simply converts a classification protocol such as AMR in the example of Figure 3, to a DiffServe compatible classification, such as a Real-Time (RT) or Non-Real-Time (NRT) classes as shown in Figure 3. However, there is no indication in the WO reference that a priority is set in a network based on the traffic classifications, or that IP packets are regenerated in order to add the set priority to the TOS field of the IP packet. Stated differently, the WO reference deals with converting traffic classes to a common DiffServe protocol, while the claimed invention is directed to using such traffic classes as a basis for setting priority information, and then adding priority bit codes to the IP packets based on the set priority information.

Thus, WO 01/86885 does not disclose a field information notifier configured to notify field information showing a format of a predetermined field in the packet, or a packet processor configured to determine the priority of a packet received at the control apparatus in accordance with the priority information, and to add the priority to the predetermined field received packet in accordance with the field information notified by the field information notifier as now required by Applicants' Claims 1-2. Therefore, independent Claims 1-2 patentably define over the cited references. As Claims 6 and 7 depend from Claim 1, and

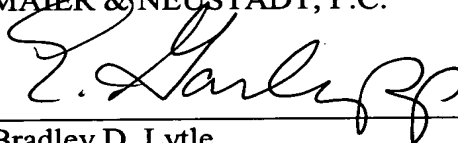
⁷ See WO 01/86885 at page 3, lines 15-30.

new Claims 8-10 depend from Claim 2, these claims also patentably define over the cited references. Claims 8-10 correspond to original dependent Claims 4, 6 and 7.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application and the present application is believed to be in condition for formal allowance. An early and favorable action is therefore respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Bradley D. Lytle
Attorney of Record
Registration No. 40,073

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 03/06)

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Edwin D. Garlepp
Registration No. 45,330